

## **ABSTRACT**

### **SYSTEM, METHOD, AND APPARATUS FOR SHIELDING SPARKS ORIGINATING FROM A COMPRESSOR IN A MARINE AIR CONDITIONER**

[0029] A system for shielding sparks generated by a compressor in a marine air conditioning system is disclosed. The components of the compressor clutch are modified and a cap encapsulates the components that can generate sparks. In particular, the outer edges of the hub and of the pulley are designed to closely receive the cap. The diameter of the hub is smaller than that of the pulley so that the cap rotates with the pulley without contacting the hub. The cap is joined to the pulley by interference fit and always rotates with the pulley. Any sparks generated by contact between the hub and the pulley are completely contained within the cap to prevent ignition of any gas fumes present in the vicinity of the compressor.